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# Making your workplace work

**TIPS FOR IMPROVING  
THE AIR QUALITY  
IN YOUR OFFICE**



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**A**t Public Works and Government Services Canada, we care about the quality of the indoor air you breathe. Often, while investigating complaints from our tenants about indoor air, we find air quality is affected by minor problems that can be easily avoided if we work together.

**W**e've produced this booklet to help you recognize these problems quickly. Inside, you'll find useful tips on how to improve indoor air quality to make your workplace even more comfortable and efficient.

**S**o read on, and breathe easier!



## **WHAT IS INDOOR AIR QUALITY?**

**I**n the great outdoors, there's plenty of fresh air. But we spend most of our time indoors, where we're surrounded by other people, walls, furniture, paper, plastics, chemicals, food and dust. All these things affect the quality of our indoor air.

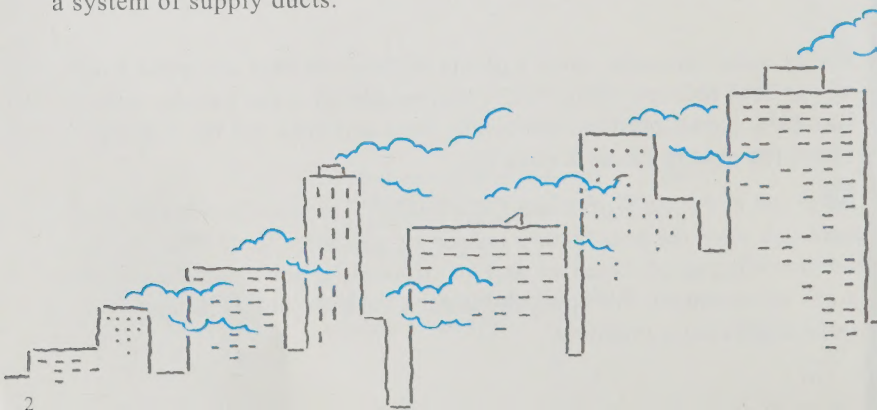
**O**ur job at Public Works and Government Services Canada is to make sure you have the best-quality indoor air possible. To do this, we focus on providing good, clean air and on eliminating pollutants from your work environment. We apply the latest standards and guidelines and good engineering practices.

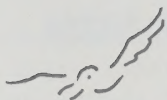
# COMMUNICATION IS THE KEY

**I**t's very important that you let us know when you have a problem with the air in your workplace. It's easy to do: simply contact the person in your department we call the facilities manager. That person's title may vary, depending on the department or even the building in which you work. Usually, the person you contact to get a new lightbulb or to have the heat turned up or down is your facilities manager.

## WHAT AM I BREATHING?

**T**oday, engineers design buildings to provide 10 litres of fresh, outdoor air to every person, every second. That's a lot of fresh air! Better still, building systems continually recirculate and filter that air several times each hour to remove pollutants. Most buildings are designed so that the air inside is of good quality; it is filtered, heated or cooled, humidified or dehumidified and delivered to you via a system of supply ducts.





## **BUT WHY CAN'T WE OPEN THE WINDOWS?**

**T**all buildings work like giant chimney stacks, especially during the winter when we have to heat indoor air. If people leave the windows open on every floor, the building draws in cold air at the bottom and pushes warm air up. As a result, people on lower floors freeze, and those on upper floors swelter. It is therefore important to let a mechanical system control the work environment, providing thermal comfort to everyone within a sealed building.

If you can open windows in your area, do so carefully;  
open them only a little bit and close them at night.



# HELP US HELP YOU

**H**ere's a list of some of the most common, easy-to-avoid situations that affect indoor air quality.



Don't block your vents with furniture or other objects. You'll cut off the air flow and prevent proper heating and cooling.

Don't block horizontal vents in window bays with things like books and files. When this happens, air can't flow normally over the window. This reduces the supply of fresh air and promotes condensation on the glass. Condensation eventually causes water damage and even mould growth on surfaces and drapes, which many people are sensitive or allergic to.

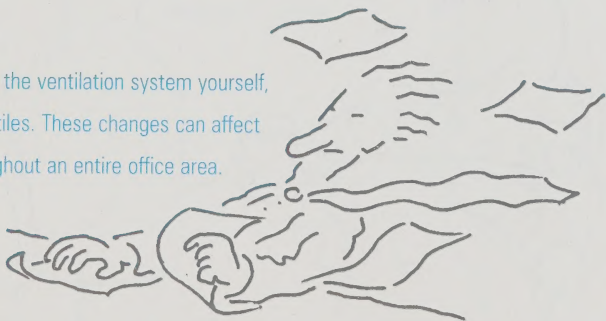


**E**ngineers design buildings to distribute air throughout workspaces according to specific requirements. Not all air-supply openings provide the same amount of air; if yours is giving out more or less than others, it doesn't automatically mean there's anything wrong. Call your facilities manager if you need help. Trying to prevent problems yourself can lead to even more trouble. So:

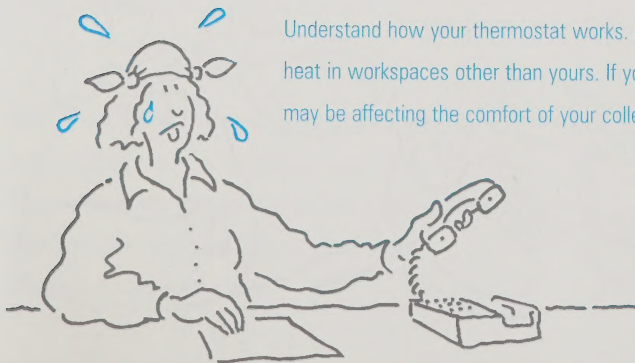


Never tape up air-supply openings to stop drafts. You may affect the air circulation in more than just your workspace. Let your facilities manager know if there's a draft so that the proper adjustments can be made.

Never adjust or redirect the ventilation system yourself, and don't move ceiling tiles. These changes can affect the air circulation throughout an entire office area.



Understand how your thermostat works. It may control the heat in workspaces other than yours. If you adjust it, you may be affecting the comfort of your colleagues.

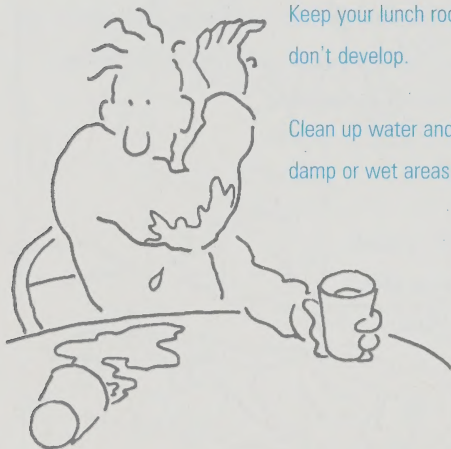


## REMEMBER YOUR COLLEAGUES

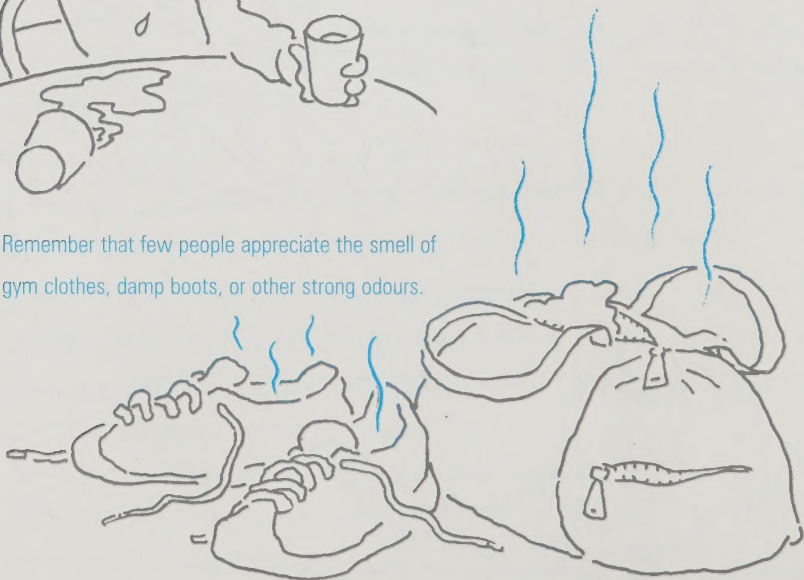
**P**ersonal habits often affect the quality of air in the workplace. While many minor problems are insignificant by themselves, every bit of pollution adds up. By remembering the simple tips below, you'll be doing your part to promote a clean, odour-free, pleasant place to work.

Keep your lunch room or break area clean, so odours don't develop.

Clean up water and coffee spills. Mould can grow in damp or wet areas.



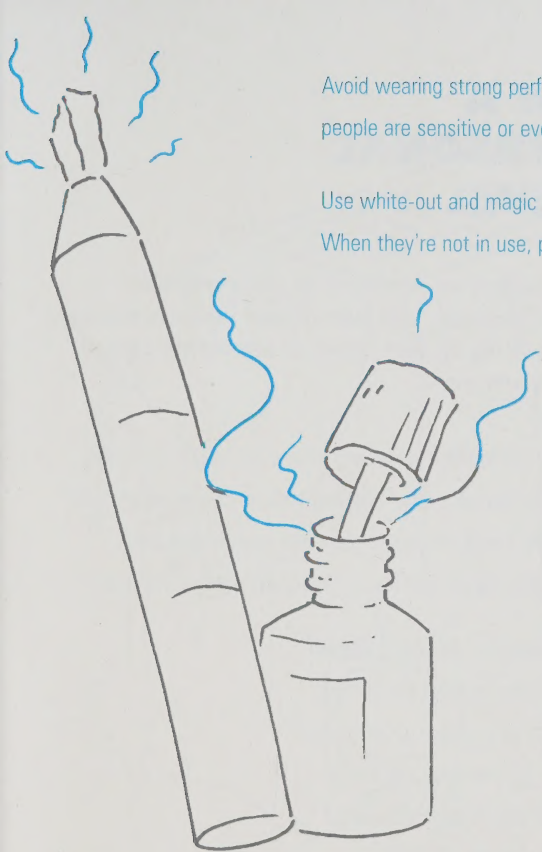
Remember that few people appreciate the smell of gym clothes, damp boots, or other strong odours.



Avoid wearing strong perfumes and aftershave lotions. Many people are sensitive or even allergic to them.

Use white-out and magic markers as seldom as possible.

When they're not in use, put the tops back on.

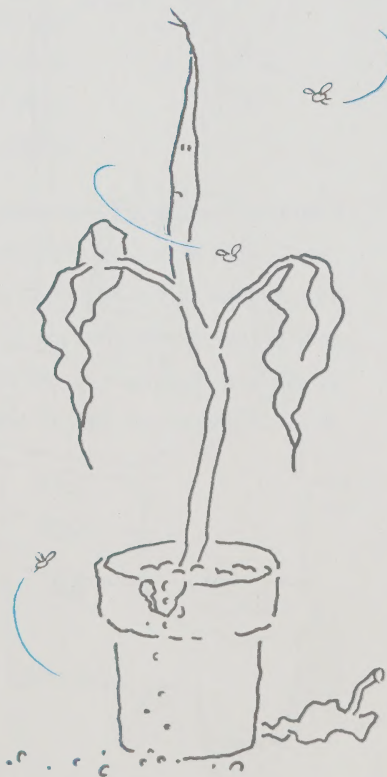


Avoid using air fresheners. They only mask odours.

Using one odour to mask another simply adds pollutants to the air.

Take care of your plants, and make sure there's a tray under them to catch any leaks from overwatering.

If your plant is sick, get professional advice. Do not treat it yourself with chemicals, which may affect your work environment.

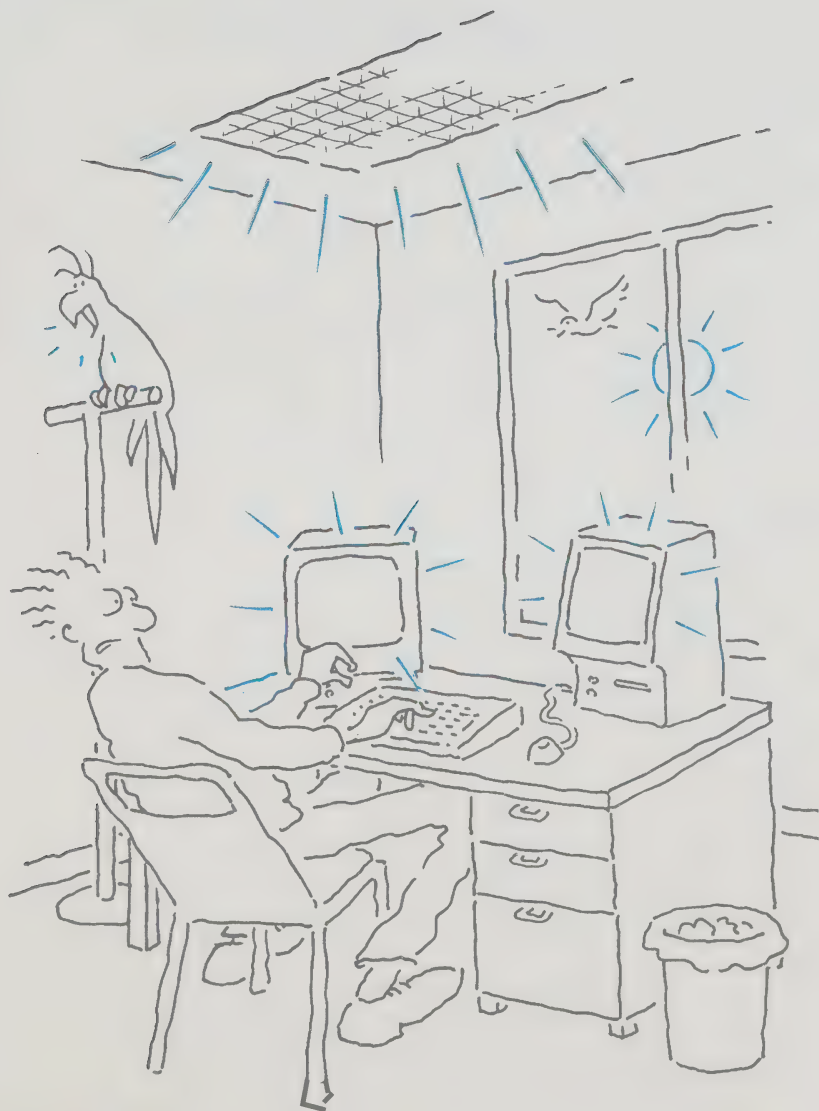


## ON A PERSONAL LEVEL

**W**e all react differently to factors we encounter in the workplace. You should take all problems seriously, and talk to your facilities manager about them. Remember that putting up with stress or discomfort caused by the workplace does no one any good.

Keep in mind that stress and headaches can be caused by environmental and work-related factors other than indoor air quality. Examples include glare from computer screens, flickering fluorescent lights, inadequate lighting and noise.

If you're having problems in your workspace and your colleagues aren't, you may be more environmentally sensitive than others. If you think this might be the case, let your supervisor know right away, and see your doctor. Ask your facilities manager about possible design solutions. You should also be kept informed of any future changes in the workplace which might affect you.



# CONVERTING OFFICE SPACE

**W**hen converting office space, chances are you'll need advice on indoor air quality, which you can easily get by contacting Public Works and Government Services Canada through your facilities manager.



Modern ventilation systems are custom designed to match the space layout and activities of your organization. Ducts and vents are part of that design. When space layouts change, you may also need to have your air distribution system modified by Public Works and Government Services Canada.

Make sure your facilities manager knows about any layout changes, so we can properly assess your ventilation needs.

If you convert office space into a boardroom or waiting room, you'll need more air and cooling for the extra people.

We can advise you about an appropriate control system.



If you convert open office space into individual, closed offices, you may create a need for extra air distribution units and thermostats to make sure you're getting the proper amount of air and the right temperature. Again, have your facilities manager contact Public Works and Government Services Canada for advice.





# THE EFFECTS OF OFFICE MACHINES

**E**ven office machines affect the work environment. Some give off heat and some emit chemicals. You may end up with poor indoor air quality if they're not properly installed and used. If you suspect your office machines are polluting your work environment, call your facilities manager who will contact us at Public Works and Government Services Canada. We'll investigate the situation and adjust the ventilation system, if necessary.

In the meantime, you should be aware of the following:



Before installing machines such as photocopiers or printers, have your facilities manager bring the operator's manual to Public Works and Government Services Canada. We can help figure out the best location for the machine and can tell you whether you'll need special ventilation. In some cases, we may have to place equipment in a separate room with exhaust hoods that vent directly to the outside.

If office machines are making your work area stuffy, hot or smelly, it's time to have the situation assessed.

If a paper shredder is creating a lot of dust, it might have to be moved to a specially ventilated room.

# HUMIDITY AND YOUR COMFORT

**H**umidity is important in making the workplace comfortable. However, it's hard to attain comfortable humidity levels in many older buildings or when it's very hot or cold outside. In winter, we often end up with high humidity, which causes condensation on windows, mould and mildew growth, and damp walls. This can be both unhealthy for people and damaging to buildings.

You'll be playing your part if you do the following:



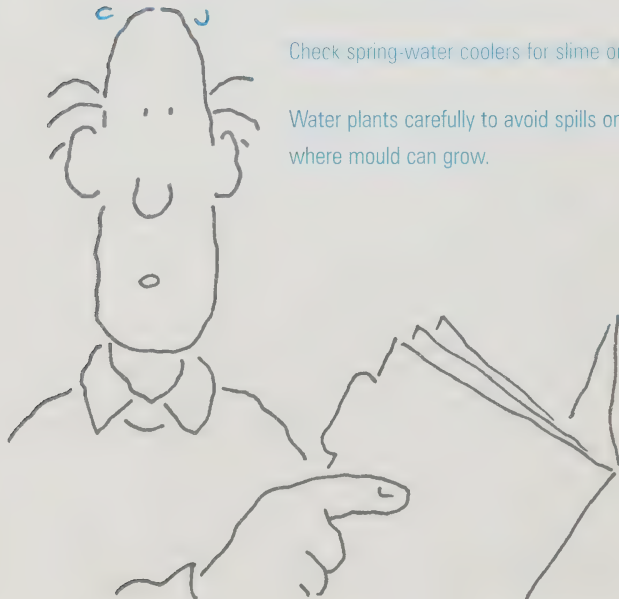
Report excessive condensation on windows.



Report all water leaks.

Check spring-water coolers for slime or mould growth.

Water plants carefully to avoid spills on carpets, where mould can grow.



Avoid using personal humidifiers. The water in these can become contaminated and pollute the surrounding air. Humidifiers may, as a result, create new problems instead of solving the old ones.

If you think the air is too dry, get the humidity level checked.

## CHEMICAL POLLUTANTS

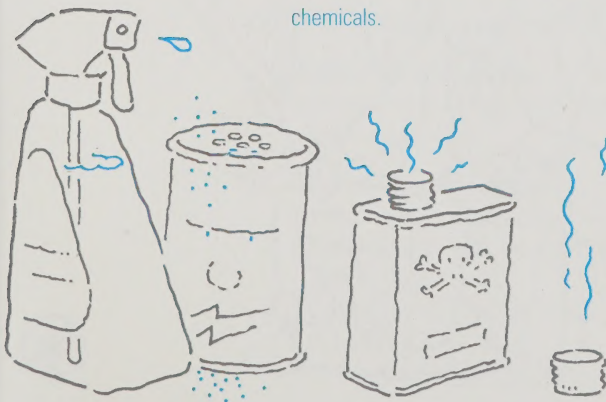


**W**orkplaces always contain materials that release small amounts of chemicals, so you should be careful to do the following:

Tightly seal and safely store all office chemicals such as solvents and cleaning compounds.

Choose low-odour products, or products that emit fewer chemicals.

Make sure that the material safety data sheets (MSDS) are readily available.



## TO CONCLUDE

**A**t Public Works and Government Services Canada, whether we're constructing, leasing, renovating, or refitting buildings, we're committed to making your workplace a more comfortable place.

By using the tips in this booklet, you'll be doing your part to make indoor air quality your priority—it's a team effort.

And remember... if you have a problem with indoor air quality, we have test kits, preventive checklists, and specialists who may be able to help.

Together, we can improve the situation.





### **For more information**

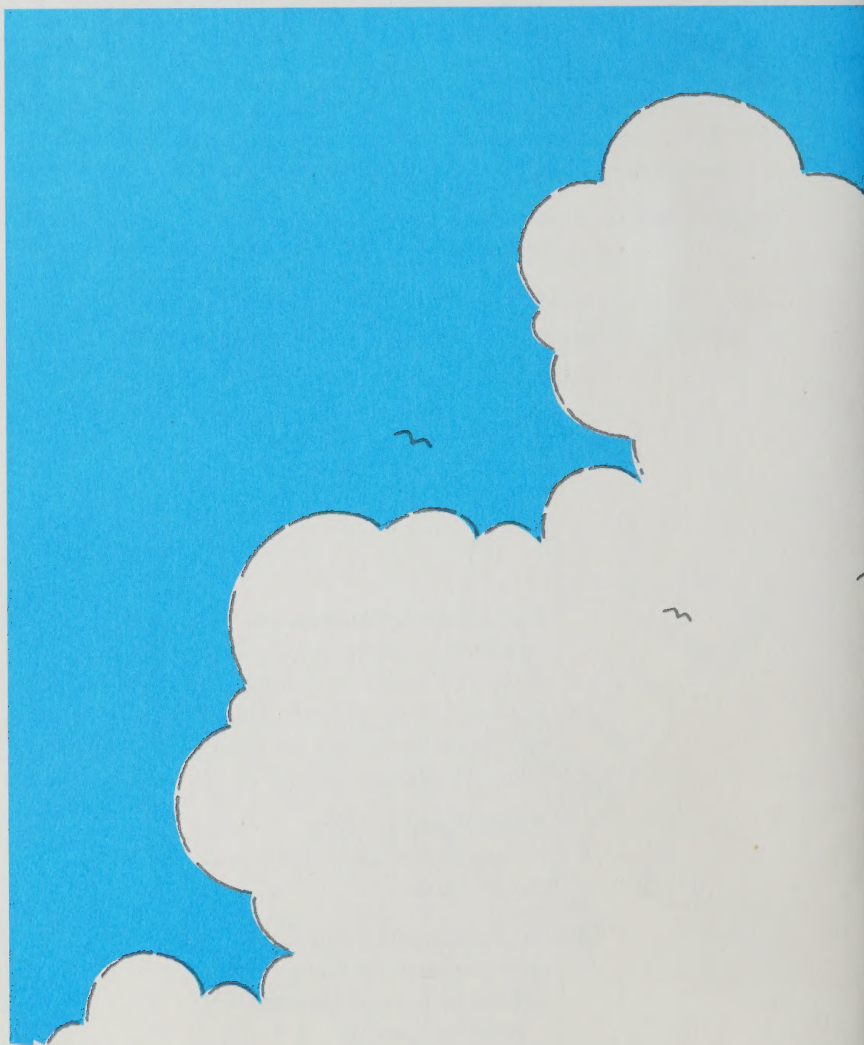
Call Public Works and Government Services Canada, in Ottawa at (613) 941-5558; or e-mail us at [nathanst@pwgsc.gc.ca](mailto:nathanst@pwgsc.gc.ca); or contact the indoor air quality specialist at your nearest regional office.

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